APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,631	03/19/2004	Michael J. Burns	02-184-C	7851

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EXAMINER
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ART UNIT	PAPER NUMBER
3693	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
Office Action Summary		10/804,631	BURNS ET AL.
		Examiner	Art Unit	
		JESSICA L. LEMIEUX	3693	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>19 March 2004</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-31</u> is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-31</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a) ☐ All b) ☐ Some * c) ☐ None of:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____.
   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>See Continuation Sheet</u>.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :1/15/2008, 12/6/2007 & 5/22/2007.

DETAILED ACTION

1.   This Non-Final Office action is in response to the application filed on March 19th,

2004.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

2.   Claims 1 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Particularly, spread is estimated based on the first tradable object (detecting an

event in the first tradeable object; and estimating the spread value based on the event;)

and later it is claimed that the spread is based on the bid-price and ask-price of the

second object (wherein the spread value is based on a highest bid price for the second

object when the second tradeable object is to be sold or the spread value is based on a

lowest offer price for the second tradeable object when the second tradeable object is to

be sold or the spread value is based on a lowest offer price for the second tradeable

object when the second tradeable object is to be bought.)

Claims 1 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being

incomplete for omitting essential steps, such omission amounting to a gap between the

steps. See MPEP § 2172.01. The omitted steps are: steps of process which relates

the detection of the first tradable object (an event) with the second tradable object and

the relation between the spread of first tradeable object with second tradeable object.

Additionally point out portion of specification and drawings with describes these

limitations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over

United States Patent Number 7,177,833 to Marynowski et al. (hereinafter Marynowski)

in view of United States Patent Number 7,110,974 to Rust (hereinafter Rust).

As per claims 1 and 26
Marynowski discloses detecting an event in the first tradeable object (column 17,
line 48- column 18, line 3), and wherein the spread value is based on a highest bid price
for the second tradeable object when the second tradeable object is to be sold or the
spread value is based on a lowest offer price for the second tradeable object when the
second tradeable object is to be bought (column 9, line 22- column 10, line 6).
Marynowski does not specifically teach estimating the spread value based on the
event.
Rust teaches estimating the spread value based on the event (Abstract; column
1, lines 5-50; column 5 line 42-column 6, line 19).
Therefore it would have been obvious to one skilled in the art at the time of
invention to modify the spread trading system of Marynowski to include estimating the
spread value based on the event as taught by Rust to calculate the cost associated with
making more informed decisions regarding whether or not to trade.

As per claim 2
Examiner notes that the combination of Marynowski and Rust teach all the
claimed limitations, as discussed with respect to claim 1 above and Marynowski further
discloses the event is based on a trade for the first tradeable object, the event is based
on a change in a highest bid price for the first tradeable object, the event is based on a
change in a lowest offer price for the first tradeable object, or the event is based on a
change in a midpoint value between the highest bid price and the lowest offer price for
the first tradeable object (column 9, line 3-36).

As per claim 3
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 1 above and Marynowski further discloses the spread value is based on a highest bid price for a third tradeable object when the third tradeable object is to be sold or based on a lowest offer price for the third tradeable object when the third tradeable object is to be bought (column 9, line 22-column 10, line 6). Examiner notes that spread values are determined based on the status of multiple tradeable objects, and therefore the process would be the same regardless of if it's the second, third or even fourth tradeable object.
Marynowski does not specifically teach estimating the spread value.
Rust teaches estimating the spread value (Abstract; column 1, lines 5-50; column 5 line 42-column 6, line 19).
Therefore it would have been obvious to one skilled in the art at the time of invention to modify the spread trading system of Marynowski to include estimating the spread value as taught by Rust to calculate the cost associated with making more informed decisions regarding whether or not to trade.

As per claim 4
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 1 above and Marynowski further discloses a user can define the event (column 20, lines 34-37 and column 21, lines 18-52).

As per claim 5
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 1 above and Marynowski further discloses a user can define a spread between at least the first and second tradeable objects for which the spread value is estimated (column 21, lines 20-30).

As per claim 6
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 1 above and Marynowski further discloses receiving market information for the first and second tradeable objects from one or more electronic exchanges (column 7, lines 36-52).

As per claim 7
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 1 above and Marynowski further discloses sending the estimated spread value (data) over a network to a plurality of user terminals (trading stations via hub) (column 5, lines 35-37).

As per claim 8

Marynowski does not specifically teach the spread value is further based on the traded price of the first tradeable object when the event is based on a trade occurring in the first tradeable object.

Rust teaches the spread value is further based on the traded price of the first tradeable object when the event is based on a trade occurring in the first tradeable object (column 3, lines 17-30 and column 5, line 48- column 6, line 10).

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the spread trading system of Marynowski to include the spread value is further based on the traded price of the first tradeable object when the event is based on a trade occurring in the first tradeable object as taught by Rust to calculate the cost associated with making more informed decisions regarding whether or not to trade.

As per claim 9
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 1 above and Marynowski further discloses estimating a quantity associated with the spread value (column 26, line 66 - column 27, line 4).

As per claim 10
Marynowski does not specifically teach the spread value is further based on a weighted average of a plurality of highest bid prices that it would take to sell the second tradeable object or based on a weighted average of a plurality of lowest offer prices that it would take to buy the second tradeable object.

Rust teaches the spread value is further based on a weighted average of a plurality of highest bid prices that it would take to sell the second tradeable object or based on a weighted average of a plurality of lowest offer prices that it would take to buy the second tradeable object (column 5, line 42- column 6, line 19).

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the spread value calculation of Marynowski to include the spread value is further based on a weighted average of a plurality of highest bid prices that it would take to sell the second tradeable object or based on a weighted average of a plurality of lowest offer prices that it would take to buy the second tradeable object as taught by Rust to calculate the cost associated with making more informed decisions regarding whether or not to trade.

As per claim 11
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 1 above and Marynowski further discloses displaying the spread value on screen (Figure 2: 230 and column 21, lines 25-30).

As per claim 12
Marynowski does not specifically teach the spread value is formatted into a chart for display on the screen.

Rust teaches the spread value is formatted into a chart for display on the screen (Figure 7).

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the display of spread values of Marynowski to include the spread value is formatted into a chart for display on the screen as taught by Rust to give traders the ability to easily analyze cost associated information.

As per claim 13

Marynowski does not specifically teach the spread value is plotted on the chart for each event.

Rust teaches the spread value is plotted on the chart for each event.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the display of spread values of Marynowski to include the spread value is plotted on the chart for each event as taught by Rust to give traders the ability to easily analyze cost associated information.

As per claim 14

Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 1 above and Marynowski further discloses determining whether the second tradeable object is to be sold or bought based on the event in the first tradeable object (Abstract; column 1, lines 29-53; column 9, line 22-column 10, line 6).

As per claim 15

Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 1 above and Marynowski further discloses determining whether the second tradeable object is to be sold or bought based on how a spread is defined between at least the first and second tradeable objects (Abstract; column 1, lines 29-53; column 9, line 22-column 10, line 6).

As per claim 16

Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 1 above and Marynowski further discloses a computer readable medium having stored therein executable instructions (column 4, line 64- column 5, line 24 and column 7, lines 31-33).

As per claim 17

Marynowski discloses detecting an event in the first tradeable object (column 9, line 7-14 and column 17, line 48- column 18, line 3), based on the event, characterizing the first tradeable object as being bought or sold, selecting a buy side or a sell side of the second tradeable object based on whether the first tradeable object was characterized as being bought or sold (column 9, lines 22- 53 and column 17, line 48-column 18, line 3).

Marynowski does not specifically teach estimating the spread value based on a first value associated with the event in the first tradeable object and based on a second value associated with the selected buy side or sell side of the second tradeable object.

Rust teaches estimating the spread value based on a first value associated with the event in the first tradeable object and based on a second value associated with the selected buy side or sell side of the second tradeable object (Abstract; column 1, lines 5-50; column 5 line 42-column 6, line 19).

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the spread trading system of Marynowski to include estimating the spread value based on a first value associated with the event in the first tradeable object and based on a second value associated with the selected buy side or sell side of the second tradeable object as taught by Rust to calculate the cost associated with making more informed decisions regarding whether or not to trade.

As per claim 18
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 17 above and Marynowski further discloses the first tradeable object is characterized as being bought when the last traded price of the first tradeable object is at or below a highest bid price (column 17, line 48- column 18, line 3).

As per claim 19
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 17 above and Marynowski further discloses the first tradeable object is characterized as being sold when the last traded price of the first tradeable object is at or above a lowest offer price (column 17, line 48- column 18, line 3).

As per claim 20
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 17 above and Marynowski further discloses the first tradeable object is characterized as being bought or sold based or if the last traded price of the first tradeable object is nearer to a highest bid price or a lowest offer price, respectively (column 17, line 48- column 18, line 3).

As per claim 21
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 17 above and Marynowski further discloses selecting the buy side or sell side of the second tradeable object results in characterizing the second tradeable object as being bought or sold, respectively (column 9, lines 22- 53 and column 17, line 48-column 18, line 3).

As per claim 22

Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 17 above and Marynowski further discloses selecting the corresponding buy side or sell side of the second tradeable object is further based on a spread definition (Abstract and column 9, line 22- column 10, line 6).

As per claim 23
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 17 above and Marynowski further discloses the second value represents a highest bid price for the second tradeable object when the sell side is selected or a lowest offer price for the second tradeable object when the buy side is selected (column 9, line 3-36).

As per claim 24
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 17 above and Marynowski further discloses the second value represents a midpoint between the highest bid price and the lowest ask price for the second tradeable object (column 9, line 3-36).

As per claim 25
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 17 above and Marynowski further discloses a computer readable medium having stored therein executable instructions (column 4, line 64- column 5, line 24 and column 7, lines 31-33).

As per claim 27
Marynowski discloses the detecting means is software (column 7, lines 7-35).
Marynowski does not specifically teach the estimating means is software.
Rust teaches the estimating means is software (column 7, lines 27-61).
Therefore it would have been obvious to one skilled in the art at the time of invention to modify the software of Marynowski to include software for estimating as taught by Rust to calculate the cost associated with making more informed decisions regarding whether or not to trade.

As per claim 28
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 27 above and Marynowski further discloses the software is run on a client device (trading station) (column 6, lines 44-52).

As per claim 29
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 27 above and Marynowski further discloses the software is run on an intermediary device (column 5, line 25- column 6, line 6). Examiner further notes Marynowski discloses the spread value (data) is

transmitted to a plurality of user terminals (trading stations via hub) over a network (column 5, lines 35-37).

As per claim 30
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 27 above and Marynowski further discloses a receiving means for receiving market information from at least one electronic exchange (column 6, lines 44-46).

As per claim 31
Examiner notes that the combination of Marynowski and Rust teach all the claimed limitations, as discussed with respect to claim 27 above and Marynowski further discloses displaying the spread value on a screen (Figure 2: 230 and column 21, lines 25-30).

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JESSICA L. LEMIEUX whose telephone number is

(571)270-3445. The examiner can normally be reached on Monday-Thursday 8AM-

5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, James Kramer can be reached on 571-272-6783. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A. Kramer/   Jessica L Lemieux
Supervisory Patent Examiner, Art Unit 3693   Examiner
                                                         Art Unit 3693

          /J. L. L./
          Examiner, Art Unit 3693
          March 2008